

1 WHAT IS CLAIMED IS:

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3 1. A method for fabrication of an enclosure  
4 device for a preselected set of speaker drivers, said  
5 enclosure having any preselected external shape and  
6 including internal cavities and channels formed to enhance  
7 the ability of said drivers to reproduce sound with  
8 preselected characteristics, the method comprising the  
9 steps of:

10 selecting said external shape and outline the  
11 external circumferential edge to create a base template;

12 placement of the outline of the internal  
13 circumferential edges of said drivers within said external  
14 circumferential edge outline of said base template;

15 placement of a plurality of guide holes within  
16 said internal circumferential edge;

17 calculate the volume for the driver chambers and  
18 supporting ports;

19 select the number said base templates required to  
20 produce the desired volume of chambers and ports;

21 outline said internal circumferential edges of  
22 said drivers and said guide holes on each of said base  
23 templates whereby said base template external on one end  
24 has openings into which said preselected drivers may be  
25 mounted, said base template external on the opposing side  
26 terminates the driver chambers and said base templates  
27 between space apart said external opposing base templates  
28 thereby creating the desired chamber volume and ports;

29 outline circumferential edges of internal  
30 supports to strengthen and stabilize said enclosure, the  
31 placement of said internal supports being selected whereby  
32 said drivers may be fully inserted within said enclosure  
33 without being limited by said supports;

34 apply each template outline of external  
35 circumferential edges and internal circumferential edges to  
36 preselected sheet stock;

- 1       cut each layer of sheet stock along said
- 2       circumferential edges;
- 3               calculate the desired characteristics of the
- 4       supporting crossover network for said drivers;
- 5               fabricate crossover network with said
- 6       characteristics and terminate said network with connectors
- 7       for each driver and for externally applied user supplied
- 8       input;
- 9               mount said crossover network to a selected layer
- 10      whereby said driver connectors are internally accessible to
- 11      attach to said drivers upon the condition of said drivers
- 12      mounted within said enclosure and said externally applied
- 13      user supplied input is externally accessible;
- 14               insert a reinforcing rod having threaded ends
- 15      within each guide hole of an external layer;
- 16               apply adhesive to at least one side of each
- 17      adjacent layer between said external layer and inside of
- 18      opposing external layer;
- 19               assemble layers in preselected order by inserting
- 20      said reinforcing rods through each successive layer
- 21      terminating with said opposing external layer;
- 22               apply a nut to each said threaded ends of said
- 23      reinforcing rods and tighten each of said nuts thereby
- 24      compressing said layers without deforming said layers or
- 25      distorting the sound reproduction characteristics of said
- 26      enclosure;
- 27               mount said selected drivers within said
- 28      enclosure, attaching the terminals of each driver to the
- 29      corresponding internal connections of said crossover
- 30      network;
- 31               apply a preselected veneer to the external
- 32      surface of said assembled enclosure; and,
- 33               apply a speaker cloth layer over said drivers.
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1           2. The method of claim 1 further comprising the  
2 steps of:

3           testing said assembled templates for sound  
4 reproduction characteristics; and,

5           adjusting selected circumferential edges to  
6 create desired response of enclosure and drivers.

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